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(Amended) A thin film thickness measurement apparatus comprising:
a light source;

an optical fiber;

a light receiving unit for directing light from said light source substantially perpendicular to a substrate and for receiving light reflected from said substrate; and an analyze unit for analyzing thickness of a thin film of said substrate according to intensity of reflected light received by said light receiving unit, wherein the optical fiber guides the light from said light source onto said substrate and guides the reflected light from said substrate to said analyze unit.

19. (Amended) A thin film thickness measurement method comprising the steps of: directing light substantially perpendicular to a substrate via an optical fiber; receiving light reflected from said substrate via said optical fiber; and analyzing thickness of a thin film of said substrate according to intensity of said received reflected light.